DESIGN STANDARDS 2001 EDITION

City of Pullman
DESIGN STANDARDS
2001 EDITION

Adopted by City Council

January 9, 2001 Ordinance No. 01-3

	, <b>*</b>	, # <sup>3</sup> .
		,
	•	
	·	
	•	
usti.		
	·	
	•	
		•
	· :	
	•	

# CITY OF PULLMAN DESIGN STANDARDS 2001 Edition Adopted January 9, 2001 by Ordinance #01-3

## A. GENERAL

1. Purpose. The purpose of these standards is to provide developers and designers with a guideline for construction of improvements which are of adequate capacity and life span, can be reasonably maintained, and are aesthetically acceptable to the general public, while allowing freedom to use alternate or innovative materials and methods of construction.

Alternate design standards will be accepted when it can be shown to the satisfaction of the Director of Public Works (hereinafter referred to as the "Director") that the alternate design will meet the intent of these Standards. The Director will consider appearance, durability, ease of maintenance, public safety, and other appropriate factors in evaluating proposals.

In some locations, compliance with these standards may impose a hardship due to existing development or unusual topography. In such locations, the Director may accept alternate standards.

- 2. Scope. These standards shall apply to all improvements within the public right of way, to all improvements within the proposed public right of way of new subdivisions, for all improvements intended for maintenance by the City, and for all other improvements for which the City Code requires approval from the Director.
- 3. Standard Specifications. Standard Construction Specifications, which include standard drawings, have been adopted by the City of Pullman. The standard specifications and standard drawings should be used in the design and construction of improvements intended for public use and/or maintenance in the City of Pullman. Where improvements are not covered by these design standards nor by the standard specifications nor by the standard drawings, the Director shall establish appropriate standards.
- 4. Project Plans. Plans for public improvements shall be submitted on sheets not larger than 24 x 36 inches. Plan sheets larger than 8½ x 13 inches shall be permanent, reproducible copies (ink on mylar or similar). The use of City of Pullman standard symbols (see Attachment No. 8) is encouraged. Where other symbols are used, each plan sheet must include a legend defining the symbols used. In general, a minimum horizontal scale of 1 inch = 40 feet is preferred for plans of proposed improvements in the public right of way.
- 5. Engineer Certification of Plans. Plans for major improvements in the public right of way shall bear the stamp and signature of an engineer licensed to practice in the state of Washington and qualified for the work being performed. The designer shall submit calculations or other appropriate materials supporting the design of utilities, pavements, and storm drainage. The designer shall submit calculations for structures and other

designs when requested by the Director.

- 6. Permits. All work requiring the disruption of the City rights of way as defined in the Pullman City Code, Title 11, shall require a right-of-way permit prior to the start of work. This requirement will also apply to development that has received plan approval from Public Works where such development will impact existing City ROW.
- 7. <u>Easements</u>. No easements (water, sewer, storm or other utilities) will be allowed to center on a property line without specific approval of the Director. The easement must normally be located on one side or the other of a property line. For major utility mains, easements shall be improved to provide vehicular access capability for maintenance purposes, as required by the Director.
- 8. Performance and Warranty Guarantees. Warranty Guarantees will be required for all public works improvements in new subdivisions which are constructed prior to acceptance by the City. Acceptable methods of guarantees will be as follows:
  - A) Maintenance Bond.
  - B) Certificate of Deposit
  - C) Letter of Credit
  - D) Cash Deposit.

Documents for carrying out these methods shall be approved by the City.

- a. <u>Performance</u>. Performance Guarantees will be required as detailed in Pullman City Code, Plats and Subdivisions, Section 13.80.180.
- b. Warranty. A written warranty for the public works improvements, inclusive of streets, sidewalks, curbs, gutters, storm drains, sewer and water systems, erosion control and storm water and drainage systems, constructed or installed is required at the time of final acceptance by the City. Said warranty shall provide for the repair, replacement or maintenance of all public works improvements that will ultimately be the responsibility of the City. Such repair, replacement or maintenance shall be to the City Standards under which the work was approved. For all public works improvements, the warranty shall run for a minimum of one year.

The warranty amount shall be a maximum of ten percent (10%) of the documented final cost of the improvements. These funds may be used by the City in the event the owner or developer fails to make required corrections to failures or perform required maintenance as required by the City. These funds are not intended to cover the cost of major failures. Such failures will remain the responsibility of the owner or developer if they occur within the one year warranty period. At the end of the warranty period a final inspection will be made to determine if the Warranty can be released. Warranties will be released upon approval by the Director.

# B. PROVIDING FOR FUTURE DEVELOPMENT

1. Meeting Regional Needs. All public improvements shall be designed as a logical part of the development of the surrounding area. Storm sewers and sanitary sewers shall be sized to accommodate the entire drainage basin which they will ultimately serve. Water mains shall be designed and constructed to provide distribution and looping to adjoining systems. Arterial streets will be developed to the extra widths indicated under "Streets." Utilities and street improvements will be extended to the boundaries of the development for future extensions to the adjoining areas. The Director may require oversizing of utility lines to accommodate future growth of the City.

Where existing City utility lines do not adjoin the proposed development, the developer will be required to extend the lines to the development as necessary. Where existing roadway improvements do not extend to the proposed development, the developer may be required to improve the roadway, including sidewalks, to the development. Except as provided below, these extensions will be at no cost to the City.

- 2. Recovering Costs. When the improvements will also serve adjoining properties (e.g., extensions of existing utilities or improvements along the boundary of the development), a portion of the costs can be recovered from owners of the adjoining property by one of the following methods:
  - a. A private agreement between the various property owners;
  - b. A reimbursement district, requiring owners of adjoining property to pay an equitable share of the costs in the future at the time they connect to the improvements (requires City Council approval for formation of a reimbursement district);
  - c. A local improvement district, which authorizes the City to make the improvements and to distribute the costs to the benefited property owners, usually allowing up to ten years for repayment (requires City Council approval and, usually, agreement of more than 50 percent of the property owners).
- 3. <u>City Participation in Cost.</u> The City will share the cost of oversizing of improvements for public use in excess of the following, provided that the oversizing is for the purpose of meeting regional requirements exceeding the requirements of the specific project being developed:
  - a. water lines in excess of 8-inch diameter;
  - b. sanitary sewers in excess of 8-inch diameter;
  - c. storm sewers in excess of 12-inch diameter;
  - d. street widths in excess of 33 feet (curb face to curb face);
  - e. arterial street pavement structural sections in excess of minimums shown in standard drawings 3 and 4.

Some areas under development may be so large or so isolated that while oversizing is still appropriate, the oversizing would speak more to the needs of the overall area being developed rather than regional needs. In these cases a determination may be made by

the Director that sharing in oversizing would not be appropriate.

The City's share of the cost of oversizing will be based <u>only</u> on the extra materials costs caused by the oversizing. The City's share of materials costs will be determined by the Director based on recent bids received by the City, price quotations from reputable suppliers, and similar impartial information. Any agreement by the City to share the costs of oversizing is subject to availability of City funds, must be in writing, and must have the approval of the City Council by resolution. Any work not receiving City Council approval will not be eligible for City payment for oversizing. The City's participation in oversizing will be by one of the following methods:

- a. Method A: City constructs a portion of the improvement; developer constructs the remainder of the improvement. Apportionment of the construction to be determined in advance based on estimates by the Director.
- b. Method B: Before start of construction, developer establishes an escrow account to cover developer's share of the costs. City constructs entire improvement using either City forces or contract, as appropriate. City uses escrow account to pay developer's share of cost. Upon completion, any funds remaining in the escrow account are returned to the developer.
- c. Method C: Developer constructs all improvements, then bills City's share per prior agreement.
- 4. <u>Deferred Construction</u>. When projects are located remote to existing roadway improvements, portions of street work may be deferred to a later date to allow more orderly construction of a complete project. The developer will be required to provide security for the estimated cost of deferred work in an amount and form approved by the Director.

# C. STREETS

- 1. <u>Arterials</u>. Arterial streets are designated and classified by the Arterial Street Plan and the Comprehensive Plan adopted by the City Council.
- Design Speed. Streets shall be designed to the following MINIMUM design speeds:

a.	major arterials	40 mph
b.	secondary arterials	35 mph
C.	collector arterials	30 mph
d.	all other through streets	25 mph
e.	cul-de-sacs	20 mph

- 3. Street Width. All streets shall have a minimum width and pavement section as shown in Pullman standard drawing 3 or 4, except as follows:
  - a. Collector arterials shall have a minimum curb-to-curb width of 38 feet. All other arterials shall have a minimum curb-to-curb width of 46 feet. Pavement

sections for all arterial streets and for streets in industrially and commercially zoned areas shall have greater pavement thickness than shown in the standard drawings if the projected traffic loading for such streets indicate need for greater pavement thickness based on the pavement design methods described in the Design Manual of the Washington State Department of Transportation.

- b. Extra width may be required on arterials where necessary to provide turning lanes.
- c. On designated bicycle routes, extra width and delineation may be required for bike lanes.
- d. It is the intent of the City to obtain full width street improvements on all newly constructed streets, regardless of the ownership of properties on each side of the street being proposed as part of a development. On proposed streets where only one side of the street is being developed, all reasonable options must be considered for obtaining a full width street. When the property not proposed for development, but adjacent to the required street, is owned by the developer of the subject project, it will be assumed that a full width street shall be installed. In cases where no practical options exist for obtaining a full width street, a phased approach to building the street may be approved, at the discretion of the Director. The first phase of development shall have a minimum of 2 inches of asphalt (thicker asphalt may be required on arterials) and a width of 24 feet. The design shall allow for widening and the addition of additional asphalt thickness at a future date if appropriate.
- e. The Public Works Director allows a deviation. Any deviation allowed must be consistent with good engineering practices and adopted long range plans of the City.
- 4. <u>Street Cross-Section</u>. Street cross section design shall comply with that set forth in the City Public Works Department Standard Engineering Specifications, standard drawings.
- Curbs and Sidewalks. Plans for proposed developments shall show curbs, gutters and 5. sidewalks for all streets as shown in the City's standard drawings. To ensure the construction of these sidewalks, the developer shall provide the City, prior to City acceptance of the subdivision, performance warranty in the form of a bond, a two-party certificate of deposit, a letter of credit, or cash for an amount equal to 100% of the estimated cost to construct all sidewalks in the subdivision. In lieu of these forms of warranty security, with the approval of the Director, a Deed of Trust secured by real property in an amount equal to 100% of the estimated cost to construct all sidewalks in the subdivision plus \$20,000 may be used as said sidewalk construction performance warranty. At the three year anniversary of the City acceptance of the subdivision, all sidewalks not yet constructed shall, at that time, be constructed by the subdivision developer. Provided, however, that any sidewalks which, at that time, are scheduled to be constructed as a condition of a building permit shall be exempt from this requirement. Failure of the developer to construct required sidewalks shall be cause for the City to construct said sidewalks and recover the costs incurred from the related

performance warranty. Curb returns at intersections with arterials shall have a minimum radius of 20 feet. Curb returns in areas zoned commercial or industrial shall have a minimum radius of 20 feet. Curb returns at all other intersections shall have a minimum radius of 15 feet. In existing developments where new construction on an empty lot or remodeling of over 30% of the structure is to occur and sidewalks are missing or damaged to the point of being unsafe, they shall be installed or repaired prior to receiving the final permit sign off and/or Certificate of Occupancy. This requirement shall also apply where construction is being proposed to replace a fire destroyed or razed building. Where curbs and gutters may be wholly or partially missing, a determination as to their need will be made on a case by case basis by the Director. Rolled curbs may be constructed in a new subdivision provided that the street design includes a minimum 5-foot-wide soft planter strip between the curb and the sidewalk. "Soft" as used in the preceding sentence means pervious to water, such as grass, gravel, or landscape rock, as opposed to impervious surfaces such as asphalt. concrete, or pavers. Planter strips are not otherwise required in new developments. Vertical curb may be constructed with or without adjacent planter strips. Rolled curbs may be constructed with adjacent sidewalks on the ends of cul-de-sac streets and along cul-de-sac streets less than 400 feet long where pedestrian traffic can be expected to be minimal, with approval of the Director. Rolled curbs are not allowed on arterial streets or on any portion of any street where the grade exceeds 10%. Curbs and sidewalks \* constructed in existing developments shall generally conform to existing improvements in terms of rolled versus vertical curb and planter strips, as approved by the City Engineer.

- 6. Storm Drains. All streets shall have drainage by means of catch basins and underground pipes except that phased construction may utilize ditches for drainage in all but the final phase. Catch basins shall be placed at locations and spacings to ensure that runoff resulting from the 10-year storm will not overflow the top of curbs or the crown of the street, whichever is lower. Catch basins should be located near intersections to intercept storm water before it reaches the crosswalk. Surface drainage across a street (valley gutters, etc.) will not normally be allowed.
- 7. <u>Stopping Sight Distance</u>. Minimum stopping sight distances shall be provided for all vertical curves, horizontal curves, and intersections as follows:

a.	on major arterials	350 feet
<b>b.</b>	on secondary arterials	275 feet
C.	on collector arterials	240 feet
đ.	on other streets	200 feet

Sight distances on vertical curves shall be determined in accordance with the formulas shown in the Design Manual of the Washington State Department of Transportation (see Attachment Nos. 1 through 3). Stopping sight distances for sag vertical curves may be waived where adequate street lighting is installed. Sight distances at intersections shall be measured as shown in Attachment No. 4. In addition, vision clearance areas must be maintained per 17.35.020(3) of the City Code.

8. Street Grades. Longitudinal street grades shall be not less than 0.5 percent. Wherever possible, maximum longitudinal street grades shall not exceed the following:

a.	on major arterials	6 percent
b.	on secondary arterials	7 percent
c.	on collector arterials	10 percent
d.	on all other streets	15 percent

At intersections, the street grade should be no greater than 5 percent within 20 feet of the near curb line of the intersecting street; where arterials intersect nonarterial streets, this restriction applies only to the nonarterial street. In selecting street grades, the designer should check requirements for sight distances, wheelchair ramps, and drainage.

9. <u>Horizontal Curves</u>. Wherever possible, minimum centerline radii for horizontal curves are as follows:

a.	on major arterials	715 feet
b.	on secondary arterials	560 feet
c.	on collector arterials	425 feet
d.	on all other streets	200 feet
	except cul-de-sacs	100 feet

On arterial streets, there should be a tangent section at least 100 feet in length between curves.

- 10. Vertical Clearance. Minimum vertical clearance on all streets is 16.5 feet.
- 11. Rail Crossings. Railroad crossings shall meet City standards and be consistent with the requirements of the associated railroad. In general either rubberized or concrete tub crossings will be required.
- 12. <u>Illumination</u>. Street lights shall be provided on metal davits as approved by the Director and in general conformance with the following:
  - a. On arterial streets: 200 watt, high-pressure sodium luminaires at a spacing of 150 feet and at intersections.
  - b. On all other streets: 100 watt, high-pressure sodium luminaires at intersections and at intermittent locations where deemed necessary by the Director.

# D. SIDEWALKS

Public sidewalks will be required on both sides of all streets, both new and existing, and in new pedestrian easements and must be placed at the time of property development or redevelopment except as required for new subdivisions in Section C.5. Sidewalks along arterial streets shall be at least 7 feet in width unless otherwise approved by the Director. Sidewalks on all other streets shall be a minimum of 4.5 feet in width. The width of the curb shall not be

included in the width of the sidewalk. Also see Section 'C', STREETS.

Wheelchair ramps will be required at all intersections and at all crosswalks. Where possible, wheelchair ramps along arterial streets shall be designed in accordance with City of Pullman standard drawings 9 and 10.

# E. <u>EROSION/SEDIMENTATION CONTROL</u>

Land alteration regulated. When a planned or anticipated land alteration activity, such as clearing (removal of vegetation), grubbing (removal of root vegetation), grading and stockpiling, within the City, has the potential of damaging off site property or degrading water quality, an erosion and sedimentation control plan must be submitted, approved and implemented prior to beginning any work. The degree of control required in the plan will depend on soil types, slope steepness and time of year. The plan shall clearly indicate the construction sequence for establishment of all erosion control work, both temporary and permanent, and shall be on a separate sheet from the other site improvements. The primary purpose of the plan will be to retain sediment within the boundary of the construction site.

Phone numbers and contacts must be provided that can be reached on a 24-hour basis in the event that the erosion controls need to be repaired or enhanced.

#### 2. General requirements.

- a. An erosion/sedimentation plan is required for all development and can be very simple for development of a single residential lot, to very complex for large subdivisions or large site development where steep slopes may be created or where the work done may impact an environmentally sensitive area (stream, wetland, etc.). The plan shall clearly indicate the construction sequence for establishment of all erosion control work both temporary and permanent and shall be on a separate sheet and made available to field crews responsible for implementing the control plan. The basic requirement of the plan is that sediment be retained on the site. Management Plans shall include, at a minimum:
  - 1) Name, address, and 24-hour telephone number(s) for the person(s) responsible for regular observation and repair or replacement of all erosion and sedimentation control measures.
  - 2) Schedule for regular inspection, maintenance, and replacement of erosion and sedimentation control measures.
- b. The temporary erosion control system shall be installed prior to all other construction.
- c. Where possible, natural vegetation will be maintained for silt control.

- d. As construction progresses and seasonal conditions dictate, the erosion control facilities shall be maintained and/or altered to ensure continuing erosion/sedimentation control through construction completion and until permanent drainage facilities are operational and required vegetation is established.
- e. The public right-of-way shall be kept clean through the use of good construction practices, construction entrances, and frequent street cleaning.
- f. Gravel, soil or construction equipment shall not be stored in the City ROW without written permission from the City Engineer.
- g. Discharge from dewatering of utility trenches or foundation areas shall be to the nearest sedimentation pond, or to a specially created sump area, in a nonerosive fashion.
- 3. <u>Control methods</u>. The following are control methods that may typically be used to contain erosion and sediment transport. Related typical drawings are also available at the Public Works Department which further detail these methods.
  - a. <u>Check Dams and Rock Berms</u>. Check dams and/or berms constructed of earth, rock, or straw bales shall be incorporated into erosion control facilities as appropriate.

Straw bales (staked in place) may be used as energy dissipating drop structures, flow direction control structures and/or dams to create ponding.

Rock berms may be substituted for straw bales as filtering devices.

Cut-off Trenches - Interceptor Ditches, Dikes or Berms:

These structures are constructed to channel water away from unprotected slopes or erodible soils, to convey silt laden water to sedimentation facilities or to dissipate drainage into the natural on-site vegetation.

If the location of the trench, ditch or dike may result in erosion of the structure itself, stabilization of the structure may be required. Riprap, temporary sodding, or a combination of filter fabric and riprap are methods of structure stabilization that may be required to prevent erosion.

- b. Filtering Devices. Filtering devices, such as filter fabric fences, shall be used to filter runoff prior to discharge from site. Approved filter fabrics are Celanese fiber, polyvinyl chloride woven cloth, reinforced chlorosulfinated polyethylene cloth, chlorinated polyethylene woven cloth, such as Mirafi 100X, Typar 3401, Stabilenka 100, or approved equal.
- c. <u>Flexible Down Drains</u>. Flexible down drains may be utilized as temporary structures to protect open slopes and shall be constructed of flared end sections

connected by plastic sheet tubing, heavy-duty fabric, or nonperforated corrugated plastic pipe.

- d. Gradient Terrace. A gradient terrace is an earth embankment or ridge designed so that the top of the constructed ridge is no lower at any point than the design elevation of the water surface at the outlet under design flow and is installed so as to intercept surface runoff and convey it to a stable outlet at a nonerosive velocity. Gradient terraces may be useful both as a temporary and/or a permanent erosion control measure.
- e. Sediment Traps: Sediment traps are structures of limited capacity designed to create a temporary siltation pond/filter around storm drain inlets or at points where silt-laden stormwater is discharged. Periodic maintenance by the contractor or developer is crucial to the proper functioning of sediment traps. Placement of filter fabric under the grate of a catch basin is not an acceptable method of inlet protection.
- f. Temporary Construction Entrance. A temporary construction entrance is a rock stabilized temporary entrance pad and shall be constructed at points where traffic will be entering or leaving a construction site from or onto public right of way. The pad shall be of sufficient length and width to eliminate transportation of mud and sediment from the construction area onto the public right of way by motor vehicles or by runoff, but under no circumstances shall it be less wide than the ingress/egress at the right of way nor less than 25 feet long. The stabilized construction entrance shall be a minimum thickness of 8 inches and constructed of material approved by the City Engineer. The entrance shall be maintained to the satisfaction of the City Engineer. When site conditions are such that the temporary entrance pad fails to perform as required, additional measures shall be employed as necessary to maintain the right-of-way free from tracked mud or sediment.
- g. Temporary Soil Stabilization Measures. Soil stabilization measures protect soil from the erosive forces of raindrop impact and flowing water. Acceptable measures include establishing vegetation by sodding or seeding, mulching with 2.0 tons of straw per acre or approved equal plastic or other impervious covering staked to the ground or anchored with rocks or sandbags, and the early application of gravel base on areas to be paved.

The most appropriate measure should be chosen given the time of the year and the site conditions. Seeding alone is acceptable only on flat areas and slopes less than 25%, and only during the periods from March 1 to May 15 and August 15 to October 1 or as otherwise required or approved. Mulch may need to be held in place by utility mesh netting or tackifier.

h. <u>Temporary Siltation/Sedimentation Ponds</u>. Temporary siltation/sedimen-tation ponds shall be required of all land alteration operations in order to detain runoff waters and trap sediment from erodible areas, thus protecting properties, drainage ways, and streams below the land alteration from damage by excessive sedimentation and debris deposition. The dam or barrier forming the pond shall

be located to provide for maximum volume capacity for trapping sediment behind the structure as well as for greatest ease of clean out. The temporary pond requirement may be waived, at the discretion of the City Engineer, for small areas of land disturbance where potential damage is minimal and pond construction impractical as long as runoff from all such areas is filtered prior to discharge from the site.

Temporary siltation/sedimentation ponds are basins created by construction of a barrier or by excavation or by a combination of both. Interior surfaces of the sedimentation pond shall be stabilized where required to prevent erosion of the pond bottom and/or sides. Interior sides of the pond shall be no steeper than 3 feet horizontal to 1 foot vertical. Siltation/sedimentation ponds shall provide a minimum of 2 feet of dead storage below the outflow elevation and will be sized to provide a minimum of 1 cubic foot of live storage per 100 square feet of channel area. A stabilized access should be provided to the siltation/sedimentation pond for sediment removal and other maintenance.

# F. STORM AND SURFACE WATER DRAINAGE

g to se

1. General. Drainage control shall be provided on all property improvements within the City of Pullman per these Standards, applicable City ordinances, current and future storm water policies, master plans and applicable State or Federal laws. The Washington State Department of Ecology (DOE) Manual for the Puget Sound Basin shall be considered the technical reference for best available practices. Of special note is the need to comply with the DOE General Storm Water Permit issued under the Clean Water Act for industries and construction. This permit covers 11 categories of industries and construction activities involving sites of over 5 acres in size. The developer of parcels over 5 acres in size must apply directly to the DOE Spokane office for a storm water discharge permit.

Surface water entering the subject property shall be received at the naturally occurring location and surface water exiting the subject property shall be discharged at the natural location with adequate energy dissipaters. Increased surface water flows resulting from the creation of impervious surfaces must be managed so as to protect adjacent property. Proposals to modify natural drainage patterns must be reviewed and approved by the Director. Such review may include consideration of the City wetlands and sensitive areas requirements and may require approval of adjacent property owners.

In general, storm water control should be through above ground controls such as ditches and ponds, rather than piping and underground detention facilities. This approach provides increased treatment of storm water, ground water recharge and in some cases, lower long-term maintenance costs. Ditches will not be expected where standard street sections, including curbs, gutters and sidewalks, are to be installed. Where possible, storm water from parking areas with over 10 spaces must be treated using some form of bio-filtration prior to discharge to a natural drainage or the City storm drain system. Environmentally sensitive areas shall be protected from potential impact of storm water by methods accepted by the Director. High risk land uses such

as auto repair/maintenance shops, car washes, certain industrial operations, retail auto parts stores and fueling sites may require special attention to controlling storm water.

2. <u>Design Size</u>. Storm and surface water control facilities, including but not limited to storm drain inlets, pipes, detention and retention ponds, biofiltration and mechanical treatment facilities or structures shall be sized to carry storm drainage runoff based on engineering calculations for the following minimum storm recurrence frequency:

For drainage areas less than 50 acres in area, a 10-year storm frequency; for drainage areas greater than 50 acres but less than 100 acres, a 20-year storm; for drainage areas greater than 100 acres, a 50-year storm; for improvements to the drainage channels in the floodway, a 100-year storm.

The rational formula may be used in calculating storm runoff, utilizing the rainfall intensity shown in Attachment No. 5.

- Discharge/Retention, Detention Design. Plans for storm drainage shall indicate where 3. the storm water will be discharged. If the proposed development will increase the rate or energy of storm runoff, it must be shown that the pipes and channels downstream from the discharge point can carry the proposed runoff without damage to the adjoining properties. Wherever possible, provisions should be made for detainage and/or retainage of storm water in order to decrease the rate of storm runoff and, more importantly, to decrease the peak runoff volume. Staged outlet control is to be included in all designs with single discharge orifice designs greater than 4 inches. In addition, the maximum size of any exposed orifice, including overflows, shall be 4 inches or shall have trash-rack type protection as approved by the Director. Detention ponds with side slopes steeper than 3 horizontal to 1 vertical or designed to maintain a pond depth greater than 1 foot when fully drained shall be protected by a security fence at least 4 feet high. Detainage or retainage will not be required for properties developing with less than 10,000 square feet of impervious area. Only above ground systems will be allowed in the flood plain. Guidance in designing detainage and retainage basins, other than within the Hatley Basin as noted in section 4, is provided by the City handout of standard drawings on storm water control systems, the handout titled "Estimation of Runoff" and the definitions of control systems contained in this document, as well as the Washington State Department of Ecology storm water manual.
- 4. For all development in the Hatley Basin, as detailed in the May 2000 Hatley Creek Storm Drainage Basin Study prepared by Gray & Osborne, Inc., discharge rate control and detention shall be provided as determined by utilizing the Santa Barbara Urban Hydrograph (SBUH) method. Staged discharge outlet structures and detention facilities shall be provided to control discharge rates to not exceed predeveloped flows for the following storm events: 50% of the 2-year, 24-hour; the 10-year, 24-hour; and the 100-year, 24-hour storms. Pre-development conditions shall be the current condition as opposed to the pristine condition and the standard summer/fall climate shall be used. For post-development a winter/spring climate shall be used by assuming 100% saturated or frozen ground providing little or no infiltration (CN=98).

- 5. Easements. Where storm drains run outside an existing public right of way, easements will be required for public maintenance. Such easements shall be a minimum of 10 feet in width. Where the City is to construct the storm drain, a construction easement will be required having a minimum width of 20 feet.
- 6. <u>Service lines</u>. All new subdivisions and developments shall include service lines for roof, foundation, and area drains on all lots. Such service lines shall be connected to the approved storm and surface water drainage system for the subdivision.
- 7. Stormwater Control Facilities. All stormwater control facilities must be operated and maintained so as to provide the design level of performance on an ongoing basis.

#### G. SANITARY SEWERS

- Design Capacity. Sanitary sewers shall be sized to carry the design volumes when flowing full. In residential areas, the design volume shall be based on 125 gallons per capita daily (gpcd), 2.8 persons per dwelling unit, and a number of dwelling units consistent with existing development and zoning. In other areas, the design volumes shall be calculated based on the development which can be reasonably expected in the area. Sanitary sewers shall be designed in accordance with "Criteria for Sewage Works Design" published by the State of Washington Department of Ecology.
- 2. <u>Easements</u>. Where sewers run outside an existing public right of way, easements will be required for public maintenance. Such easements shall be a minimum of 10 feet in width. Where the City is to construct the sewer, a construction easement will be required having a minimum width of 20 feet.
- 3. Minimum Cover. Sewers should have a minimum cover of 3 feet.
- 4. <u>Side Sewers</u>. Side sewers shall comply with Standard Drawing No. 24 and the current edition, adopted by the City, of the Uniform Plumbing Code. The installer shall supply the City Engineer with a drawing of the side sewer installation showing location(s) of the line(s) relative to property lines and the building structure.

# H. WATER LINES

 Design Domestic Flows. Water mains shall be sized to provide a combined fire flow and peak day flow in accordance with the standards shown below.

Water mains in residential areas shall be designed to supply 1,085 gallons per day per dwelling unit (based on average usage of 124 gpcd; 3.5 persons per dwelling unit; peak day demand of 2.5 times average demand) plus fire flow. The number of dwelling units used for design shall be consistent with existing development and the zoning of undeveloped land. Alternate design bases may be used if justified by the designer.

In nonresidential areas, water lines shall be sized to serve development which can be reasonably expected in the area based on zoning and topography.

- 2. Design Fire Flows. For design purposes, minimum fire flows shall be 1,500 gpm in low and medium density residential areas; 2,500 gpm in commercial and high density residential areas; and 3,500 gpm in industrial areas. The design shall be consistent with the current Fire Department standards and shall provide the maximum flows while maintaining a minimum residential pressure of 20 psi. For further details refer to the currently adopted edition of the Pullman Fire Department Fire Protection Development Standards. Where special conditions exist, greater or lesser design fire flows may be designated by the Director for new developments and by the Fire Chief for new and existing buildings pursuant to Section 10A.30.010(3) of the Water Utility Code.
- Design Pressure. Water systems shall be designed to provide a minimum pressure of 40 psi with no fire flow. With fire flow, the minimum pressure shall be 20 psi in all areas. Water systems shall be designed to have a maximum static pressure of 100 psi at any building connection. Pumping stations and pressure reducing valves may be required to meet these requirements. Pipes shall be specified to withstand the maximum test pressures but in no case shall pipes be classed less than 150 psi. The designer should contact the City Engineering Division for information on the pressure zones and water supply available for the area.
- 4. Valves: Water valves on mains 12 inches or less in diameter shall be resilient wedge gate valves which meet the latest American Water Works Association standards. Valve types and models on larger mains will be as approved by the Director. Generally, valves should be located so that a water line can be shut off without eliminating service to more than 20 homes or more than one fire hydrant.
- 5. Minimum Diameter. Water mains for public maintenance shall have a minimum diameter of 6 inches, except that mains not serving a fire hydrant may have a minimum diameter of 2 inches provided that the domestic and irrigation demand can be reasonably met without excessive water velocities and friction losses as determined by the City Engineer.
- 6. Hydrant Spacing. Fire hydrant spacing shall not exceed 600 feet measured along the curb line in areas zoned R-1, R-2, or RT and shall not exceed 300 feet in other areas. The Fire Chief may require additional hydrants in accordance with the Uniform Fire Code. For further details refer to the currently adopted edition of the Pullman Fire Department Fire Protection Development Standards.
- 7. Blowoff Valves. A blowoff valve must be located at the end, or a fire hydrant must be located within 20 feet of the end of any dead-end water main, including temporary dead-end mains in phased developments. Blowoff valves and their installation shall be as per standard drawing 2.
- 8. Air Relief Valves. An air relief valve per City of Pullman Standard Drawing No. 17 will be required at the high point of each water main. A blow-off valve or hydrant shall not be considered as a substitute for an air relief valve. Design pipe grades shall minimize the use of air relief valves wherever possible.

- 9. Easements. Where water mains and/or fire hydrants are constructed outside of existing public right of way, easements will be required. The easements for maintenance of the lines must have a minimum width of 10 feet. If the water line is to be constructed by the City, a construction easement must be provided with a minimum width of 20 feet.
- 10. <u>Minimum Cover.</u> Water lines shall be constructed with a minimum of four feet of cover unless otherwise approved by the City Engineer and shall have thrust restraining as specified in the Standard Specifications. Excessively deep water mains shall not be allowed without specific approval by the City Engineer.

#### I. <u>RETAINING WALLS</u>

- 1. Design. No private retaining wall shall be constructed in the public right of way without prior approval of the Director. Retaining walls greater than 5 feet in height must be designed by an engineer licensed in the State of Washington and bear the signature and seal of that engineer. The City has prepared engineered designs for retaining walls which may be used in most locations. No private retaining walls will be allowed in the right of way where the wall may interfere with potential future private or public utility needs.
- 2. <u>Sight Distance</u>. Retaining walls constructed near intersections shall be designed to maintain the minimum sight distances for streets and shall conform to vision clearance area provisions of the City Code. Where this provision is found to be impractical, the Director may approve alternate proposals.
- Guardrails. Where a street or sidewalk is within 5 feet of the top of a retaining wall greater than 2 feet in height, the wall must have a pedestrian railing along the top. All retaining walls greater than 6 feet in height must have pedestrian railings. Standard drawing no. 1 shows an example of an acceptable pedestrian railing.

# J. <u>UTILITY LOCATIONS</u>

The location of utilities in the public right of way shall be as approved by the Director. Franchised utilities should normally be located in a common trench with trenches parallel to City utilities trenches and located so as to provide at least five (5) feet clear between franchise and City utilities. Public utilities located outside the public right of way are discouraged. Valves, manholes, and cleanouts located in undeveloped terrain shall be marked with a partially buried, reinforced concrete or steel post with a cleated base to prevent withdrawal.

# K. STREET TREES

This section is intended to interpret chapters 11.48 and 11.50 of Pullman City Code.

Owners of adjoining property may plant trees and shrubbery in the public right of way with the approval of the Director of Public Services except as follows:

- 1. No tree or shrub which is or can reasonably be expected to become greater than 3 feet in height shall be planted within 6 feet of the face of curb on any street. Height of trees or shrubs shall be measured as the height above the top of curb.
- 2. No existing street or sidewalk pavement may be cut for the planting of trees or shrubs unless the Director has approved such pavement cutting.
- 3. Maintenance of trees and shrubs shall be the responsibility of the adjoining property owners. Trees and shrubs shall be pruned and maintained as necessary to provide the minimum sight distances for streets.

No tree growing within the public right of way shall be removed without the approval of the Director of Public Services if the trunk of the tree is greater than 4 inches in diameter measured at a point 12 inches above the ground, or if the height of the tree exceeds 20 feet. Smaller trees and shrubs may be removed by the owner of adjoining property without approval of the Director of Public Services.

Trees and shrubs overhanging a public street and/or sidewalk shall be pruned to maintain an unobstructed clearance the full width of the pavement or sidewalk, 7 feet above the sidewalk and 16.5 feet above the street. These requirements shall be the responsibility of the adjacent property owner.

## L. <u>SITE PLANS</u>

This section is intended to complement chapter 17.135 of the Pullman City Code for private development requiring site plan review by the City.

- 1. <u>Vehicle Access</u>. Private development shall have vehicular access to the street in accordance with the standard drawings, off-street parking in accordance with the Pullman City Code, and adequate access and egress for fire vehicles. The Director may restrict the number, location, and design of driveways where necessary to protect the safety of vehicular and pedestrian traffic in the public right of way.
- 2. Parking. The developer must provide evidence that parking areas would provide the minimum number of parking stalls required by the Zoning Code (Title 17 of the Pullman City Code) in accordance with the minimum standards for parking lots shown in Attachment No. 6.

Parking areas of 4 or fewer parking spaces shall be gravel surfaced or paved, including the driveways serving the parking area. Parking areas of 5 or more parking spaces must be paved. Driveways serving loading areas and fire access lanes shall have a minimum width of 20 feet and be asphalt or concrete paved surface. "Paved" means, as a minimum, 2 inches of asphalt pavement with a 6-inch gravel base, or 5.5 inches of Portland cement concrete pavement with a 4-inch gravel base or similar. Where necessary to control storm water or to control vehicular access, the Director may require curb along driveways and in parking areas.

- 3. Street Improvements. The Director may require the developer to improve the public streets used for access to the site as necessary to control dust and erosion and to provide for traffic safety. Improvements may include paving, curb and gutter, sidewalks, storm drainage, turn lanes, signing, street lighting, signals, and similar improvements. The improvements required shall be limited to those necessitated by the new traffic movements to be generated by the new private development.
- 4. <u>Drainage</u>. Roof drains, subdrains, and surface drainage shall be shown on the site plan. Storm drainage shall be to a public storm drainage system, to an existing natural drainage course, or to a properly designed retention or detention basin. Where development will increase the rate or energy of storm runoff and/or change the location of the storm runoff discharge, provisions must be made to protect downstream property from erosion and flooding. Building drains may not discharge to the surface where such discharge will cause direct flow across a sidewalk.
  - 5. Grading. A grading plan must be submitted if any of the following apply and a grading permit must be obtained if the site plan review process is not applicable:
    - a. If any fill will exceed 10 feet in height; or,
    - b. If any excavation will exceed 10 feet in depth; or,
    - c. If the total volume of cut and fill will exceed 50 cubic yards.

A grading plan must be adequate to show all new cuts and fills and changes in drainage. Grading (cut and fill) should be kept to a minimum. Grading should be designed to minimize the visual impacts from surrounding properties. Cut slopes and fill slopes steeper than 2:1 will require a retaining wall or other protection to ensure slope stability. A slope steeper than 2:1 and more than 10 feet in height will be required to have a five (5) foot high chain link fence or other approved protection at the top of the slope. Where cuts or fills greater than 20 feet in height or steeper than 2:1 are proposed, a report must be submitted, signed by an engineer qualified to do such work and registered in the State of Washington, showing the methods that will be used to ensure stability of the fills and slopes. Grading plans shall include provisions for drainage and erosion and sediment control during construction.

6. Water, Sewer and Storm Drain. Proposed connections to the public water, sewer, and storm drain lines must be shown on the site plan. If existing public water, sewer, and storm drain lines are not adequate to accommodate the increased demand created by the proposed development, the Director may require the developer to improve or replace existing public water, sewer, and storm drain lines at no cost to the City. A drawing of the location of the sidesewer stub must be provided to the City Engineer.

Additional fire hydrants may be required along the adjoining street or within the development when determined necessary by the Fire Chief in accordance with the City Fire Department adopted standards. All fire hydrants and all water lines serving fire hydrants shall be dedicated for City use and maintenance.

7. <u>Public Access</u>. Except as noted below, each building must have pedestrian access separate from vehicular driveways and at least one pedestrian access route shall be usable by persons with disabilities. EXCEPTIONS: Apartment buildings of four or

fewer apartments; warehouses and other structures where the need for pedestrian access is negligible.

The Director may require the construction of a public walkway along the adjoining street if none exists. The Director may require replacement of an existing sidewalk along a public right of way if the existing walk does not meet the current City standards. The effect of a development on significant trees is regulated by section 17.45.070 of the Pullman City Code. Sidewalks shall be installed as required under Section C, Part 5.

- 8. Street Addressing. The City Engineering Division will assign a street address or addresses for each development. The owner of the development will designate the various units of the development by numbers, letters, or otherwise (e.g., Apartment No. 101, Space 3-A, Unit 5, etc.). If the development consists of more than 6 units, the owner will submit a reproducible copy of the system of units numbers, etc., and the system will be used for postal addresses, building permits, etc. The City will not assign individual street addresses to the various units of a single structure development having more than two units.
  - 9. <u>Floodplain</u>. Any development in the floodplain must meet the requirements of Chapter 7.100 of the Zoning Code.

#### M. <u>PLAT MAPS</u>

Final subdivision plat maps and short plat maps shall be drawn in the format shown in Attachment No. 7. All certifications and approvals shall be signed before the map is recorded with the County Auditor.

Durable black drafting media, such as India ink or photographic reproductions, shall be used on plat maps, to assure clear reproduction on standard printing equipment (Ink-jet and xerographic media are not considered durable). Signatures shall be made with fine-tip permanent black marking pens. All plats shall be drawn on polyester film (Mylar) sheets no larger than 24 x 36 inches, at a minimum scale of one (1) inch equals 40 feet, unless otherwise approved. If the plat is on more than one sheet, each sheet shall be labeled "Sheet of ..."

A standard sheet size of 24 x 36 inches is preferred for all plats and short plats.

Residential subdivision plats shall include utility easements 5 feet wide along each front lot line and ten (10) feet wide along the front lot line of cul-de-sac lots.

If grading is to occur outside the limits of roadway improvements, a grading permit may be required prior to final plat approval. See requirements under "Site Plans."

# N. <u>BOUNDARY LINE ADJUSTMENTS</u>

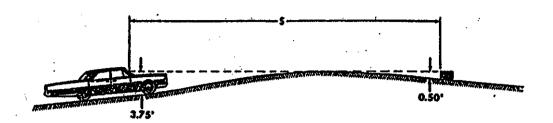
Changes to property boundary lines do not require the filing of a short plat if (1) no additional lots are created, and (2) the resulting lots meet zoning requirements for minimum lot area and dimensions. To assure compliance with these requirements and establish a record of this compliance, the following procedure should be employed.

- 1. Any person wishing to adjust a boundary line shall submit to the Director a sketch showing the proposed adjustments. The sketch shall be drawn to scale on an 8½ x 11 inch or 8½ x 14 inch sheet. It shall show existing and proposed property lines; the lot numbers, block numbers, and subdivision names of the existing property; and the setback dimensions of existing buildings from the proposed revised property boundary lines.
- 2. The Director will review the proposed boundary line adjustments. If the proposed change creates no additional lots and conforms to Pullman Zoning Code requirements for lot dimensions, lot areas, building coverage, and setbacks, the Director will attach and sign an approving affidavit. This approval will not accomplish the boundary line adjustment, however. It will be necessary for the legal owners of the properties involved to record additional documents with the Whitman County Auditor in order to legally transfer ownership of the affected areas.

Boundary line adjustment approvals signed by the Director will be retained in the files of the Engineering Division.

	, •
	•
	.•
	9
	•
	•
	•
	· · · · · ·
	•
	•
	•
•	
•	
•	

# STOPPING SIGHT DISTANCE FOR CREST VERTICAL CURVES

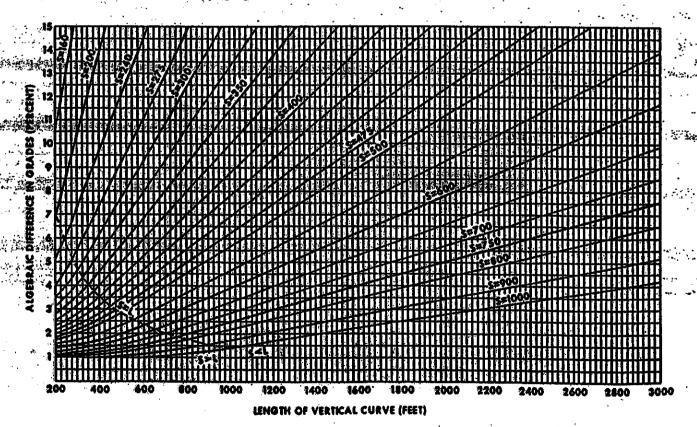


when s > L	when s < L
L = 25 - <del>1398</del> A	1 = AS <sup>2</sup>
L=Curve Length (Feet A=Algebraic-Grade i S=Sight Distance (Fee	Difference (Percent)

DESIGN SPEED (MPH)	MIN. STOPPING DISTANCE (FEET)**	DESIRABLE MIN. STOPPING DISTANCE (FEET)*
25	160	200
30	200	240
* 35 *	240	275
40	275	350
.50 <sub></sub>	350	475
60	475	650
70	. 600	8.50
80	750	1050

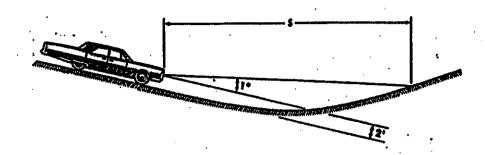
<sup>\*</sup>For branch connections and exits on high speed highways, it is desirable to have at least 1000' Stopping Sight Distance.

<sup>\*\*</sup>Headquarters approval required.



ATTACHMENT NUMBER I

# STOPPING SIGHT DISTANCE FOR SAG VERTICAL CURVES

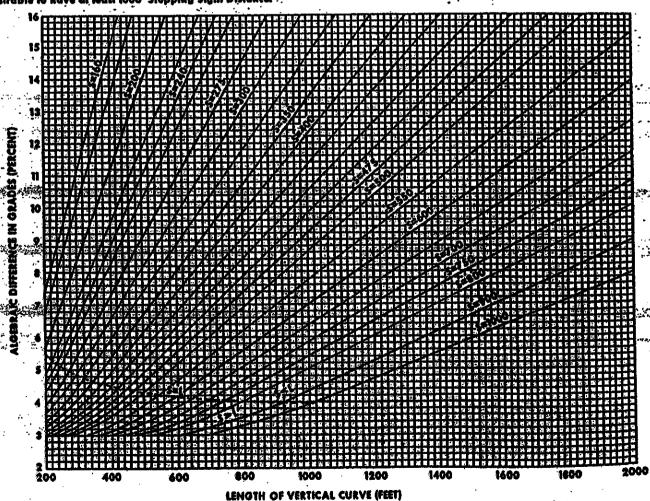


when s < L
L= A5 <sup>2</sup> 400+3.55
fforence (Percent)
)

DESIGN SPEED (MPH)	MIN. STOPPING DISTANCE (FEET)**	DESIRABLE MIN. STOPPING DISTANCE (FEET)*
25 ·	160	200
30 .	200	240
35	240	275
40	275	350
50	350	475
- 60	475	650
70	.400	850
80	750	1050

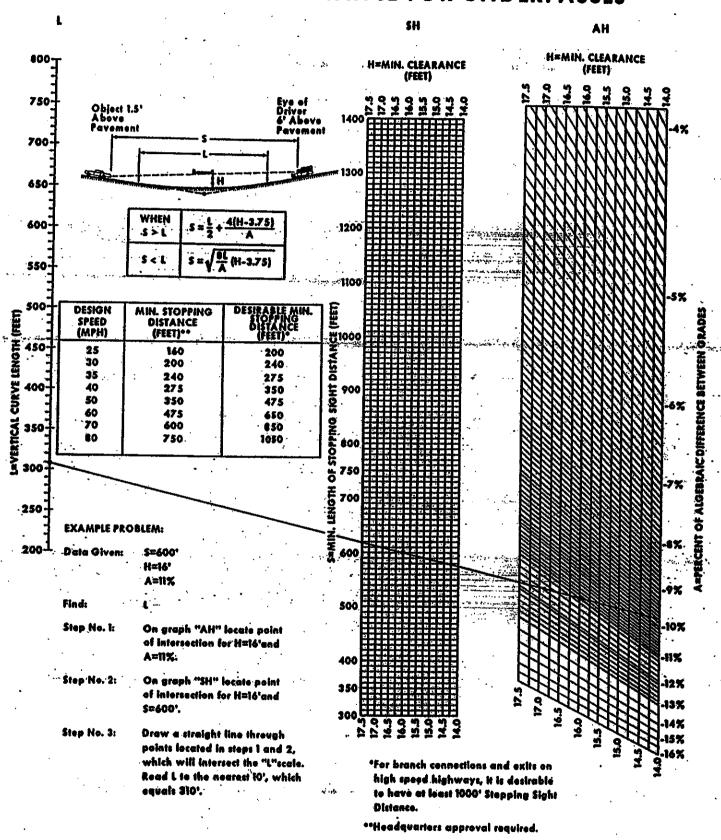
<sup>\*</sup>For branch connections and exits on high speed highways, it is desirable to have at least 1000' Stopping Sight Distance

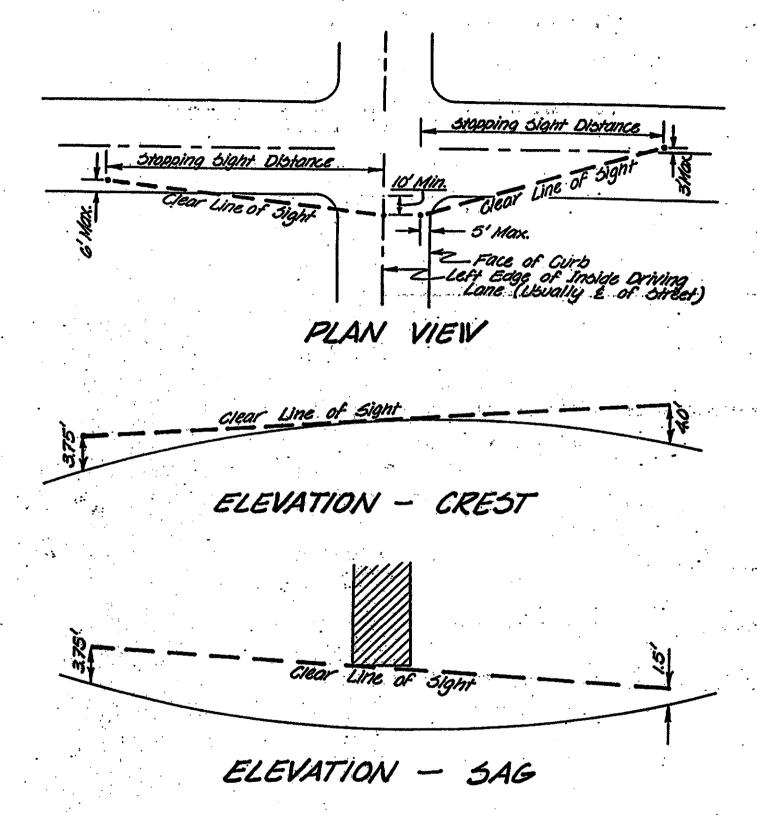
<sup>\*\*</sup>Headquarters approval required.



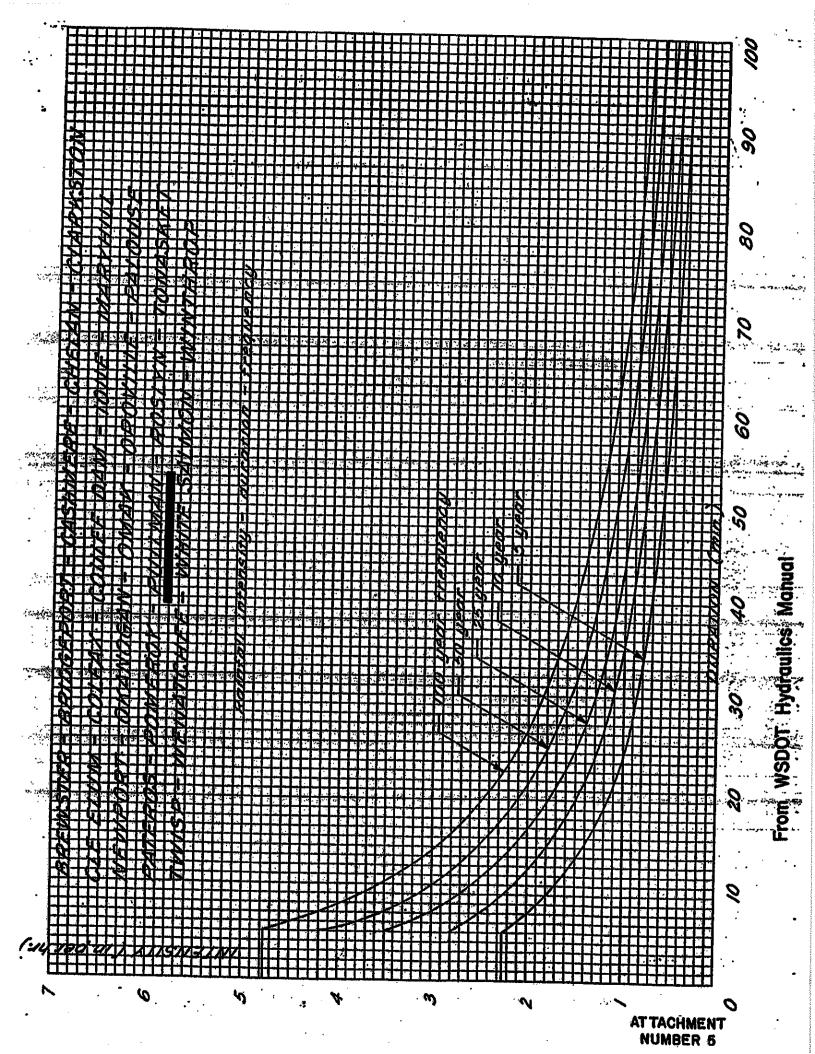
ATTACHMENT NUMBER 2

# STOPPING SIGHT DISTANCE FOR UNDERPASSES





Measurement of Sight Distances at Intersections



Ò

â

œ

# CIRCULATION TWO-WAY

ANGLE SECTI WIDT	10111110		`			20	<u>.</u>
	NO H	PARKING BANK WIDTH	TRAFFIC AISLE WIDTU	CURB LENGTH	STALL	PARKING SECTION	PARKING
		STANDARD	ARD	VEHICLES	ES	MIDIN	
).  -  -	36'	-60	20,	23	-60		
20	58,	-02	20,	12.	8.5	.15	15.5
9 .09	,09	50.	20,	9.8	8.5	55	12.5
9   06	64	20,	24,	6	-6		
	Critica natura	COMPA	PACT	VEHICLES	LES		
) (	35,	7.5	20,	15,	7.5		
45°	52,	.9	50,	1.3	8	47	13.3
60°   5	53.6	16.8	50,	9.2	-80	20.	14.9
30 <sub>0</sub> 06	50'	18,	502	-@	-80		

50

8.5 8.5

일일

55 55

45°

စ

**e**0

VEHICLES

COMPACT

191

12 2

27 44

°

45 90

48.6

900 <u>ر</u> ال

202

CAR STALL WIDTH

TRAFFIC AISLE WIDTH

PARKING SECTION WIDTH

PARKING ANGLE

Ø

**CIRCULATION** 

ONE-WAY

VEHICLES

STANDARD

13.3 4.9

39 46

CURRENT ZONING CODE ADDITIONAL REQUIREMENTS 의 의 의 NOTE:

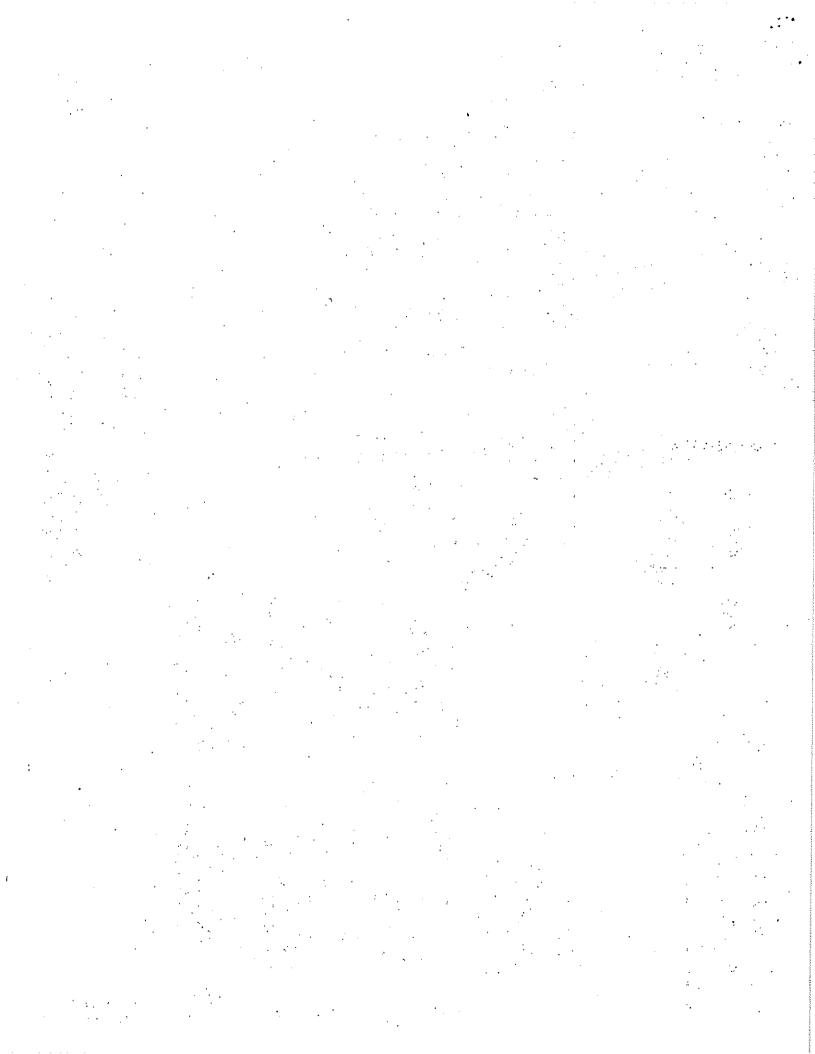
**CLEARANCES** TURNING

# PARKING LOT DETAILS

ATTACHMENT NUMBER 6

#### DESCRIPTION: | |} |}|| LEGAL White see the beauty them. White when we are specially N 0<u>1° 00' 30"</u>W 140-00' TOTAL SA STATE Section Section 15, T.2N., R.53E., W.M.(A-) city of Pullman, Whitman County, State of Washington 0000 8 00.00 S 88° 59 en has an a 140.00 <u>01° 00'30"</u>W 110.00 30"W DOE 00,00 100,00 BOUNDARY MONUMENT ORIGHT OF WAY & MONUMENT MAN WAY WAY X MANN AWA WAYAN WAYAN 140.00 LEGEND 100.00 N<u>OI\*00'30"</u>W 140.00' REIBER 90.00' COVENANTS or them secured breat beautiful me who I. Argue store was where reason were 100.00 ഗ WAY 140.00 DRIVE 15.48 95,48 . 100.00 N 88° 59' 30" E 100.00 ത 110.00 140,00 500,58 12000 10058 10058 Œ 140,00 110.00 S 01º 00'03"E NOPOO'30"E 293,46" 310.00 N 87°42' 12" E SCALE IN FEET AUDITOR'S CERTIFICATE: TREASURER'S Who win our on in which win one on in which win one of that we or has ASSESSOR'S CERTIFICATE CERTIFICATE Whole series and 22 4 23 Personal Maria edin un SCALE J)CITY APPROVAL: H)DEDICATION Poakes(c CERTIFICATE: PUBLIC WORKS )ACKNOWLEDGEMENT: CERTIFICATE The see when が さな マネ よう くき more were many there are now were sea on an are many stars when digital are now any me me . - me men men we was SHEET. • **ATTACHMENT**

NUMBER 7



# NOTES FOR ATTACHMENT NO. 7

多名的 · · · · · · · · · · · · · · · · · · ·	
The correct name of the subdivision	n shall be shown prominently at the top of each sheet of the plat.
\$30 July 18 18 18 18 18 18 18 18 18 18 18 18 18	
and we rame being rediatted: 10	existing subdivision, an extra line should be included in the title to or example, "A REPLAT OF LOTS 2 & 3 OF JOAN'S 2ND he existing lot lines should be shown dashed or faint on the plat.
MOJUENTE	
quality coller. The lies shall be su	ways be tied to a section line and a monumented section corner or afficiently indicated so that the section line will provide a basis of ection line should be derived from the published coordinates of the
NORTH CONTRACTOR	
If desired, the firm preparing the plas the firm requires for its records. already been shown at the top of the	at may include the firm name, a logo, and such other information This should not be a title block, as the title of the subdivision has plat.
SURVEYOR'S CERTIFICATE:	
This map correctly represents a surrequirements of the survey recording, 20	vey made by me or under my direction in conformance with the g act at the request of in
	Signature and License No.
TREASURER'S CERTIFICATE:	
I hereby certify that taxes and a and preceding years this day	assessments on property shown herein have been paid for 20, 20
·	Whitman County Treasurer

, IN A SECTION OF				
AUDITOR'S CERTI	FICATE:			
Filed for rec	cord this	day of		, 20 at
	M., under Microfilm	1 Number		at the request of
	·		·	
		Whitma	n County Auditor	
(Provide a 4" x 3/4" s	pace near Auditor's	Certificate for audi	tor's receipt.)	
SOUTH COLLEGE				
ASSESSOR'S CERT	IFICATE:	,		
tax rolls.	that this property is	assessed to		according to current
		•		
	County A	ssessor	Dat	æ
Miller and a second				
DEDICATION:				
				,
KNOW ALL MEN B single person) (d/b/a	Y THESE PRESEN	TS: that <u>(name)</u>	and <u>(name)</u> (h	nusband and wife) (a
in tee simple, and	•	. (a	cornoration)(etc	(percentage)
(etc.) have with the described to be subdiv	eir iree consent and	i in accordance w	ith their degires com-	ead the land housin
thame of surveyor c	ompany or surveyor	) as the official s	urvey of siname of s	abdivision) and do
nereby dedicate and q	uit claim to the use	of the public forevo	er, all streets, avenues	s places and public
easements shown on to or fills upon the lots,	he plat; including ea blocks tracts shown	isements for and the	ne right to make nece	ssary slopes or cuts
avenues, places, and	public easements, s	shown thereon: an	d hereby waive all o	claims for damages
against any governme	ntal authority which	may be occasione	d to the adjacent land	d by the established
construction, drainage hereby certify that the	ev are the owners of	of said streets, ave of and the only na	nues, places, and pul	blic easements; and
aivided, and that the	e property shown	hereon is not en	cumbered by any d	lelinquent taxes or
assessments; and, that	they are authorized	to sign this dedicati	ion.	

NOTE: A COLO		
In witness whereof we have set our hands this _	day of, 20	•
	(name)	
	(name)	
	(name of security holder)	,
	by(name)	(4:41-)
•	by	(title)
	(name)	(title)
		Štotav
ACKNOWLEDGMENT (Individual):		* 100
STATE OF WASHINGTON )		
County of Whitman )		35 <b>4</b>
On this day of		ersigned,
a notary public in and for the aforesaid state, per to me known to be the person(s) who executed that that (he/she/they) executed the same as a free ar therein.	sonally appeared before me (name(s)) he within and foregoing instrument and ackno	wledged
ulorom.		
	Notary Public in and for the State of Wash	ington
	Residing at	
	My Commission expires	

ACKNOWLEDGMENT (Corporation):		e <del>ge</del> r
STATE OF WASHINGTON )		
County of Whitman ) ss.		,
On this day of	, 20 , before the	undersigned, a notary
public in and for the aforesaid state, personame), (title) and (	title) of (corporation name)	and
the corporation that executed the within a to be the free and voluntary act of said coath they are authorized to execute said is seal of said corporation.	and foregoing instrument; who acknown orporation for the purposes mentione	wledged said execution d therein and stated on
	Notary Public in and for the	State of Washington
	Residing at	
	My Commission expires	
NOTTE TE (Secting) bed to consist our		
CITY APPROVAL:		
Approved by the Pullman City Courby Resolution Number	ncil at its regular meeting of	, 20,
-		
	Mayor, City of Pullman	Date
	ATTEST:	
	Finance Director	Date

OR (for short plats where right of way is being d	ledicated):	
CITY ACCEPTANCE:		·
Dedication of right of way accepted by, dated, 20	the Pullman City Council l	by Resolution Number
		-
	Mayor, City of Pullman	Date
	ATTEST:	
	Finance Director	Dete
,	rmance Director	Date
Route a kengangan ang ang ang		
PUBLIC WORKS DIRECTOR CERTIFICATE:		
Approved as to survey data, easements, im	provements, and compliance w	ith regulations.
I hereby certify that all required publiconstructed or adequate security has been p Examined and approved this day of	osted for construction of de	ve been satisfactorily ferred improvements.
	·	
	Director of Public Works City of Pullman	
FINANCE DIRECTOR CERTIFICATE:	•	
I hereby certify that all assessments and o been paid.	ther fees for which the proper	ty may be liable have
	Finance Disease	
	Finance Director City of Pullman	Date

# CITY OF PULLMAN

# STANDARD SYMBOLS

*	EXISTING	PROPOSED
WATER LINE	All Underground Utilities GT E	= GAS = TELEPHONE = ELECTRICAL
WATER VALVE	į	N = SANITARY SEWER D = STORM DRAIN 4
FIRE HYDRANT	<u>ol</u> w≪₃²"	
MANHOLE	<u>o</u>	.h.:
CLEANOUT	O 150 C.O.	I" Typical I Lettering 1" • C.O.
CATCH BASIN	<u>o</u> • • •	0.1" 2
LIGHT POLE	0 16 0 32	16 32 1
UTILITY POLE	<u>0</u> -0- <u>1</u> "	16
CURB	<u>ool</u>	
ROAD OR PAV'T EDGE	<u>ol</u>	4
FENCE	<u>ol</u> ×——×—	<del>***</del>
SIDEWALK		
		Dot Pattern: # 3 Pen

ATTACHMENT NUMBER 8

# CITY OF PULLMAN STANDARD SYMBOLS, CONTINUED

		0.2"
CITY LIMIT	4	0.9" 0.1"
TOWNSHIP LINE	4	T.14 N. R.45E. W.M. T.15 N. R.45E. W.M.
SECTION LINE	3	
QUARTER SECTION LINE	2	0.05"
SIXTEENTH SECTION LINE	1	0.2" 0.1" 0.3"
EASEMENT LINE	٥	
RIGHT-OF-WAY BOUNDARY	1	0.1" R/W
RAILROAD R.O.W. BOUNDARY	1	0.05" R.R. R/W
EXISTING ROAD CENTERLINE		0.7"
CONSTRUCTION OR SURVEY CENTERLINE	4]	0.05"

ATTACHMENT NUMBER 8 PLATE 2 of 2

# CITY OF PULLMAN STANDARD ABBREVIATIONS

@	at
A.C.	asphalt concrete
ACP	asphalt concrete pavement
Aggr.	aggregate
Asph.	asphalt
Bldg.	building
BM	benchmark
Bng.	bearing
C	centerline
CAP	corrugated aluminum pipe
C.B.	catch basin
C.F.	cubic foot
Cl.	class
CI.	cast iron
CMP	corrugated metal pipe
Conc.	concrete
Const.	construct, construction
CSTC	crushed surfacing top course
CSBC .	crushed surfacing base course
C.Y.	cubic yard
Dr.	drive
Drwy.	driveway
Dwg.	drawing
E	east
Ea.	each
Elev.	elevation
EOP	edge of pavement
Exc., Excav.	excavate; excavation
Exist.	existing
FH	fire hydrant
Fin.	finish; finished
Ft.	foot
In.	inch
Inv.	invert
Jt.	joint
Lb.	pound
L.F.	linear foot
L.S.	lump sum
Lt.	left
Max.	maximum
MH	manhole
Min.	minimum

N north No. number Pavt. pavement PC point of curvature portland cement concrete PCC ΡĮ point of intersection point of tangency PT Rt. right S south San. sanitary S.D. storm drain sidewalk Sdwk. S.F. square foot sheet Sht. Spec. specifications St. street Sta. station standard Std. S.Y. square yard T. ton Typ. VC typical vertical curve  $\mathbf{w}^{-}$ west Yd. yard

